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THE COGNITIVE ENVIRONMENTS OF URBAN PRE-SCHOOL CHILDREN. MANUAL OF INSTRUCTIONS FOR ADMINISTERING AND SCORING HOME RESOURCES PATTERNS.

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THIS MANUAL DESCRIBES MEASURES USED IN "THE COGNITIVE ENVIRONMENTS OF URBAN PRE-SCHOOL CHILDREN" PROJECT AT THE UNIVERSITY OF CHICAGO. THE SAMPLE FOR THE STUDY CONSISTED OF 163 NEGRO MOTHER-CHILD PAIRS SELECTED FROM 3 SOCIOECONOMIC CLASSES BASED ON THE FATHER'S OCCUPATION AND THE PARENTS' EDUCATION. A FOURTH GROUP INCLUDED FATHER-ABSENT FAMILIES. THE MOTHERS WERE INTERVIEWED AT HOME AND THE MOTHERS AND CHILDREN WERE TESTED AT THE UNIVERSITY OF CHICAGO WHEN THE CHILDREN WERE 4 YEARS OLD. FOLLOW-UP DATA WERE OBTAINED WHEN THE CHILDREN WERE 6 AND AGAIN WHEN THEY WERE 7. THE INFORMATION OBTAINED IN THIS PORTION OF THE HOME INTERVIEW WAS USED TO ASSESS THE DEGREE TO WHICH OBJECTS, EXPERIENCES, AND ATTITUDES IN THE HOME AID THE CHILD'S READINESS FOR SCHOOL. THE DATA WERE OBTAINED FROM THE MOTHER'S RESPONSES TO AN EXTENSIVE SERIES OF QUESTIONS SUPPLEMENTED BY THE INTERVIEWER'S OBSERVATIONS. THE RATING, ON A 5-POINT SCALE, WAS MADE FROM AN ASSESSMENT OF THE AVAILABILITY AND UTILIZATION OF THE RESOURCES WHICH WERE CLASSIFIED INTO 9 PATTERNS. INTERPRETATIONS OF THE RATINGS FOR EACH PATTERN ARE GIVEN. PRINCIPAL COMPONENT FACTOR ANALYSIS SHOWED THAT ALL 9 SCALES LOADED HEAVILY ON THE FIRST UNROTATED FACTOR. THE SCORE ON THIS FACTOR WAS USED AS THE BASIC HOME RESOURCES MEASURE. THIS IS A PART OF THE HOME INTERVIEW DESCRIBED IN PS 000 475 AND IS ONE OF THE SAMPLE SOURCES FOR THE LANGUAGE-STYLE ANALYSIS DESCRIBED IN PS 000 492. (DR)

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THE COGNITIVE ENVIRONMENTS OF URBAN PRE-SCHOOL CHILDREN

Robert D. Hess, Principal Investigator

MANUAL OF INSTRUCTIONS

FOR ADMINISTERING AND SCORING

HOME RESOURCES PATTERNS

The measures described in this manual were developed in the project, Cognitive Environments of Urban Pre-School Children, supported by: Research Grant #R-34 from the Children's Bureau, Social Security Administration, and the Early Education Research Center, National Laboratory in Early Education, Office of Education, both of the U.S. Department of Health, Education, and Welfare; the Division of Research, Project Head Start, U.S. Office of Economic Opportunity; the Ford Foundation Fund for the Advancement of Learning; and grants-in-aid from the Social Science Research Committee of the Division of Social Sciences, University of Chicago.

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THE COGNITIVE ENVIRONMENTS OF URBAN PRE-SCHOOL CHILDREN

The research sample for the Cognitive Environment Study was composed of 163 pairs of Negro mothers and their four-year-old children, from three socioeconomic classes, defined by father's occupation and parents' education: upper-middle, professional and executive, with college education; upper-lower, skilled and blue collar, with high school education; lower-lower, semiskilled and unskilled, with no greater than tenth-grade education; a fourth group included father-absent families living on public assistance, otherwise identical to the lower-lower class group.

Subjects were interviewed in the home, and mothers and children were brought to the University of Chicago campus for testing, when the children were four years old. Follow-up data were obtained from both mother and child when the child was six years of age, and again at seven years.

Principal Investigator for the project is Professor Robert D. Hess, formerly Director, Urban Child Center, University of Chicago, now Lee Jacks Professor of Child Education, School of Education, Stanford University.

Co-Investigator for the follow-up study is Dr. Virginia C. Shipman, Research Associate (Associate Professor) and Lecturer, Committee on Human Development, and Director, Project Head Start Evaluation and Research Center, University of Chicago, who served as Project Director for the pre-school phase of the research.

Dr. Jere Edward Brophy, Research Associate (Assistant Professor), Committee on Human Development, University of Chicago, was Project Director for the follow-up study and participated as a member of the research staff of the pre-school study.

Dr. Roberta Meyer Bear, Research Associate (Assistant Professor), Committee on Human Development, University of Chicago, participated as a member of the research staff during the pre-school and follow-up phases of the project and was in charge of the manuscript preparation during the write-up phase of the research.

Other staff members who contributed substantively to the project include Dr. Ellis Olim (University of Massachusetts, Amherst), who was responsible for the major analysis of maternal language; Dr. David Jackson (Toronto, Ontario), who was involved in early stages of development of categories for the analysis of mother-child interaction, and participated in the processing and analysis of data; Mrs. Dorothy Runner, who supervised the training and work of the home interviewers, acted as a liason with public agencies, and had primary responsibility for obtaining the sample of subjects; and Mrs. Susan Beal, computer programmer.

COGNITIVE ENVIRONMENT STUDY

HOME RESOURCES PATTERNS - MANUAL*

SUMMER 1967

INTRODUCTION

The home resources patterns described in this manual were developed and used to assess the degree to which the home provides a variety of objects, experiences, and attitudes relevant to the educability of the pre-school child.

"Resources" refers to objects, events, and persons which are available in the home environment and which function to provide experience and information and to stimulate the development of skills and attitudes in the four-year-old child; specifically, the criterion of resourcefulness here is the impact or value of the resource for the young child's educability. "Educability" in turn refers to the child's readiness for school. Readiness for school, however, does not imply merely the existence of skills required for entrance into school, but the attitudes toward learning and a variety of experiences with persons and events which allow ease of adjustment to the role of pupil in relation to teacher, institution, and peers.

Operationally, home resources refer primarily to mothers' responses to questions and interviewers' descriptions and evaluations of home and family, all obtained during interview sessions held with the mother in the home. A

*The major portion of this manual was prepared by Miss Georgianne Baker (Assistant Home Economist, Instituto InterAmericano de Ciencias Agricolos de la OEA, Turrialba, Costa Rica), who was primarily responsible for constructing the Home Resources Patterns scales, and for scoring the families in the study.

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lengthy list of interview items was clustered to describe nine categories or patterns of home resources: physical space, physical movement, physical appearance and care, play, work-orientation, direct learning, indirect learning, direct social contacts, and indirect social contacts. Direct social status indicators such as income, father's occupation, and parents' education, were excluded from the sources of information. In each instance, a rating from low to high availability and utilization of resources is made not merely according to presence or utilization of the appropriate objects, events, and orientations, but also on the basis of the relevance and applicability of family resources to the young child's developing skills and attitudes.

PROCEDURE

Sources of information for the ratings

Appropriate items from the home interviews were examined for information pertinent to each resource pattern. Some items pertained to more than one pattern; for example, the mother's description of "yesterday's" activities was used throughout to obtain information on the various patterns. The items used to assess home resources, and the response categories for each, are given below. Responses to items for which no response categories are listed here were recorded verbatim and either scored later or used for qualitative distinctions in making the ratings of home resources.

Interviewer's description of the setting in which the interview occurred: home and neighborhood surroundings.

Ratio of rooms to people in the home.

Number of available labor-saving devices, and condition or adequacy of each

(washing machine, dryer, refrigerator, freezer or compartment, vacuum cleaner, electric mixer, electric dishwasher, blender, iron, ironing board, telephone, others specified by interviewer).

Rating of furnishings, considering quantity, quality, and appropriateness (superior; excellent; good; fair; poor; or completely inadequate).

Sleeping arrangements for the four-year-old child:
Does he sleep in a bedroom, or elsewhere (specify)?
How many people sleep in the room with the child?
Who sleeps in the room with the child?
(like-sexed siblings; siblings of the opposite sex; parents; siblings of both sexes; some combination of these; others; or child sleeps alone)
Who sleeps in bed with the child?
(same categories as above for who sleeps in the room)

Inside play area and its condition
(large playroom or large area in own room; small play room or adequate area in another room; constricted play area within home; or inadequate area such as hallway or basement or other public area).

Outside play area and its condition
(large private yard; small private yard; large semi-private yard; small semi-private yard; open space on grounds; public play lot or park within child's walking distance; vacant lot nearby; or no outside play area available within child's walking distance).

Outdoor toys and equipment: number of items of each type
(sandbox, dollhouse, pool, tree house, play store, etc.; stationary gym equipment such as jungle gym or swings; mobile toys such as tricycle, skates, wagon)

Indoor toys and equipment: number of items of each type
(construction toys such as blocks, tinker toys, beads, peg board; role-playing toys such as dolls, animals, cars, planes, dishes, tools, doctor or nurse kit; school-oriented toys such as paper and pencils, blackboard, ABC's, numbers; expressive toys such as colored paper, scissors, crayons, paints, clay, musical instruments)

Use of toys and equipment: for each of the outdoor and indoor types listed above
(extreme [much of each day]; regular [at least once each day]; often [several times a week]; sometimes [at least once a week]; seldom; never)

What type of toys does the child enjoy playing with most?

Toy-substitutes provided by mother: specify, e.g., pots and pans for musical instruments.

Extent of child's unsupervised play (mother not present, checks on child once an hour or less) with other children
(not allowed; with siblings or cousins only; with immediate neighbors known to mother; or with any children on the block)

Extent of child's unsupervised play (as above) outside the home
(on his porch or in the yard only; at a neighbor's house; anywhere on the block; or beyond the block at public parks or playgrounds)

Mother's attitude toward child's independence in play
(demands; encourages; allows; discourages; forbids)

Extent and frequency of television viewing by mother and child
For each of 39 local and network programs, the mother was asked to indicate how often the child watched the show and how often she watched it
(almost always; often; sometimes; never)

Television-viewing preferences
Mother was asked to list the five shows she enjoyed most, and the five shows the four-year-old child enjoyed watching most. The name of each program was recorded, with the day of the week and the time it was on.

Number of hours child watches television per day
(less than one hour; 1-2 hours; 2-3 hours; 3-4 hours; 4-5 hours; 5-6 hours; more than 6 hours)

Does mother ever turn on the local educational television channel?

If mother watches educational television, what programs does she recall having watched on that station during the previous two weeks?

Hours during the day when the radio is usually on

Stations usually tuned in on the radio (mother's first, second, and third choice, specifying AM or FM)

Typical Day
"Now, Mrs. _____, I would like for you to tell me in as much detail as possible about your activities and those of your family yesterday. We have found that we can learn a great deal about what our four-year-olds are like and what they like to do if we follow them closely for one whole day. We know that every child and every household is different. We hope that you will feel free to tell us in your own way about your activities and those of the family as you lived together yesterday.
"I know that it is often difficult to recall everything we do. I will attempt to help by asking questions at intervals (from time to time) if it becomes a little difficult. We want to get a complete picture of the whole day — from the time you and (four-year-old child) got up until bedtime. You may have questions; I will be glad to answer any that I can."
Suitable probing questions were used by the interviewer to obtain a

full account of the day's activities, to fill in gaps left in the mother's narrative, and to inquire about areas she might overlook.

The entire response was tape-recorded, and later transcribed; typed verbatim responses were used for scoring the home resources patterns.

Rating of child's clothing
(excellent; adequate; inadequate; extremely inadequate)

Self-reliance: which of the following does the child regularly do on his own, without help from mother:
(dress himself [except for tying shoes]; get a drink of water or a snack; use the toilet; wash his hands; perform small household tasks)

Rating of mother's attitude toward self-reliance
(demands; encourages; allows; discourages; prevents)

Mother's attitude toward child's behavior leading to mastery

Mothers were asked to respond to nine hypothetical situations in which the child's behavior in the course of mastering skills came into conflict with the environment. Tape-recorded responses were transcribed verbatim for scoring. Five of the nine items were used as sources of information for rating the home resources patterns:

"What would you do if (four-year-old child) was trying to learn to sweep and accidentally broke something of value?"

"What would you do if _____ spilled soup all over while attempting to feed himself?"

"What would you do if you had _____ in a supermarket, and he kept running around pointing out things on the shelves so that your shopping was slowed up and he was getting in the way of other shoppers?"

"What would you do if _____ was trying to paint a picture and accidentally splashed paint all over a nearby chair which had a clean slip cover on it (or a new rug you had just gotten for your living room)?"

"What would you do if you found _____ taking a good clock apart so that he could see what made it tick and he either broke or lost some of the pieces?"

Quantity of reading material for the child
(much [10 or more books]; some [6 to 10]; few [1 to 5]; none)

Quality of reading material for the child
(superior quality and variety; excellent quality and good variety; good quality but not as great variety; poor quality but great variety; poor quality and no variety; doesn't apply, no books)

Use of reading material by the child
(same categories as above for use of toys and equipment)

Use of reading material by adult with child
(same categories as above for child alone)

How long was the child read to yesterday?
(2 hours or more; 1½ to 2 hours; 1-1½ hours; 45-60 minutes; 30-45 minutes; 15-30 minutes; up to 15 minutes; not at all)

Quantity of records for the four-year-old child
(same categories as above for reading material)

Quality of records for the four-year-old child
(same categories as above for reading material)

Use of records by the child
(same categories as above for reading material)

Use of records by adult with child
(same categories as above for reading material)

Quantity, quality, and use of intellectual-type games for the four-year-old child
(same categories as above for reading material, records)

What is the mother doing to prepare the child for school?
"Are there any particular things you are doing now with (four-year-old child) or that he is doing that you think may help him when he gets to school?"
The mother's response was recorded verbatim, and probes were used, where applicable, to obtain an account of concrete, specific actions the mother was taking to prepare the child for school.

How mother answers child's questions
"What do you do if (four-year-old child) asks you a question that you can't answer?"
(look it up with him; look it up for him; send him to someone else; ask someone else for him; tell him you don't know; answer as best you can; change the subject or ignore him; some combination of the above)

Reading material for adults and for older children: quantity, quality, use
(For each age group, parents and siblings, information was obtained and scored in the categories listed above for reading material for the child.)

Records for adults and for older children: quantity, quality, use
(same categories as above for child)

Intellectual games and hobbies for adults and for older children: quantity, quality, and use
(same as above for child)

"Do you (mother) generally find things out by reading the newspapers, listening to the radio or TV, or by talking to friends?"

"Some people enjoy reading a magazine or book when they have a few minutes, while others are not too interested in reading. Do you (mother) read any magazines regularly (at least every other issue)?"
If yes, specify which magazines.

"In the last month or so, have you (mother) read anything in books?"
"In magazines?"
"In newspapers?"
"In pamphlets?"
"Other types of reading material?" (specify)

"What kinds of books do you (mother) like best? Do you prefer love stories, biographies, books on how to do things, stories of family life, books of adventure, or something else?"
Mothers' first two choices were recorded
(academic subjects; biography; books on how to do things; stories of love and romance; stories of family life; books of adventure; mystery books; other books : specify)

Utilization of library resources

"Where is your nearest library?"

"Do you have a library card?"

"Do you ever go to the library? How often?"
(once a week; once every two weeks; once a month; once every six months; once a year; less than once a year)

"When you go to the library, about how many books do you usually get for yourself?"

"About how many books do you usually get for the children?"

(when applicable) "Do the older children have library cards?"

For each of a list of holidays, mother was asked to describe the family's activities and the children's participation in both preparation and celebration
(Thanksgiving; Christmas; New Year's; Labor Day; birthdays and family anniversaries; Memorial Day; Fourth of July)

Interviewer's description of family interaction

Religious activities

Is the mother a member of the church? Is the father?

Mother's frequency of church attendance
(4 to 7 times a week; 2 or 3 times a week; once a week; at least once a month; less than once a month; never)

Father's frequency of church attendance
(same categories as above for mother)

Does the four-year-old child attend daily Bible school in the summer?

Does he attend Sunday school?

Does he participate in any other church activities for children?
(if yes, specify)

Mother's activities: The actual name of each organization the mother belongs to, and the activities or purpose of the group, were recorded. The groups were assigned to the following categories
(church-related, political, school related, self-education, community-oriented, patriotic or military, or social),
and a rating of her involvement in each group was made
(very active - holds or has held office, acts on committees, attends regularly, and is very interested; active - attends meetings fairly regularly, sometimes helps prepare, is interested; member - intermittent attendance, does not help prepare, retains slight interest in group; non-member - does not belong but sometimes attends meetings or retains some interest; or no involvement in this type of group).

Father's activities: same as above for mother; mother was asked to indicate the extent of father's participation in the different types of groups, and to list each group to which he belonged and its purpose.

Extent and type of adult socializing

"When you (parents) get together with your friends, where do you usually go?"
(ballet, theater, opera, or concerts; clubs and lodges; nightclubs and restaurants; parties; sporting events; movies; coffee houses; bars or taverns; one of our homes; other places specified by mother)

"How often do you (mother) visit (pass the time of day) with, or stop and talk with the people who live within a few blocks of you?"
(several times a day; 6 or 7 days a week; 3 to 5 days a week; 1 or 2 days a week; once or twice a month; once in a while; almost never)

"Are these almost all relatives, almost all friends, or both relatives and friends?"

"About how much time would you say you (mother) spend each week visiting people at home or having somebody visit you?"
(more than 20 hours; 15 to 20 hours; 10 to 15 hours; 7 to 10 hours; 5 to 7 hours; 3 to 5 hours; 2 to 3 hours; 1 hour; none)

One non-interview item was used in rating the home resources patterns scales: Mother's and child's appearance during their visit to the University for testing, along with notes made by the interviewer about their appearance during the home visit: neatness and cleanliness, appropriateness of dress to the occasion and the weather, and consistency of physical appearances.

Construction of the scales

Within each of the nine groupings of sources of information about different resource-pattern areas, four ratings were combined to yield a range of five scores. Availability and utilization of resources were each rated for quantity and quality in terms of orientation toward educability. Simple plus (+) and minus (-) ratings were used in the initial steps:

Availability		Utilization		Summary Symbol	Numerical Rating
Quantity	Quality	Quantity	Quality		
+	+	+	+	+ +	5
- or +	+ or -	+	+	+	4
+ or -	+ or -	- or +	- or +	+ - or - +	3
-	-	- or +	+ or -	-	2
-	-	-	-	- -	1

Scoring the interview data

Twelve cases were rated at a time, three from each of the four social status levels represented in the sample; social class was masked for each case. All cases in a set of twelve were rated together on each scale; i.e., all were rated on Scale I, then all on Scale II, etc. Reliability coefficients of .70 to .90 were obtained for a group of cases coded by three raters. Similar size coefficients were obtained for intra-rater reliability.

THE HOME RESOURCES PATTERNS AND SCALES

SCALE I: PHYSICAL SPACE PATTERN

Description

Physical space refers to the arrangement of activity areas and equipment inside the home, and how they are used and maintained. The basic issue evaluated by this scale is: is space ample, uncrowded, and well-maintained, or is it limited and poorly-maintained? Sources of information include the interviewer's description of the home, rooms to people ratio, indoor play area, sleeping arrangements for the child, household appliances, and furnishings; number and use as well as description of these resources are indicators of the space pattern. Availability of resources refers to the extent to which the overall physical space is ample and uncrowded. Utilization of resources includes presence of privacy and variety, and the degree to which space and equipment are well-maintained.

Ratings

5. High: Very ample, uncrowded, well-maintained spaces and equipment.

4. Fairly unrestricted and well-maintained space and equipment.

3. Fairly unrestricted but somewhat poorly kept space and equipment; or somewhat restricted but well-maintained.

2. Somewhat limited space and equipment, somewhat poorly kept.

1. Low: Extremely limited space and equipment, disordered and poorly-maintained.

Sample Ratings

High (4 or 5): The child sleeps alone in his own room and has a large, clean play area. There is considerable variety of operating equipment in the home (more than a dozen different appliances), and the furnishings are in excellent condition. The home has eight rooms for four people.

Medium (3): The child sleeps in a bedroom with an opposite-sexed sibling. He has a large play area in fair condition in his bedroom. The home has seven different appliances and a telephone. The furnishings are in fair condition and are adequate for the space. There are five rooms for six people.

Low (1 or 2): The child sleeps in a bed with four other siblings of the same sex. His indoor play area is inadequate and in poor condition. There are four operating appliances in the home, not including a telephone. Flies buzz around open garbage bins in the home. There are three rooms for four people.

SCALE II: PHYSICAL MOVEMENT PATTERN

Description

This pattern refers to the child's physical movements out into the neighborhood and surrounding community. The basic issue is: is his movement unrestricted, varied, and safe? Resources include: the outdoor play area, outdoor mobile and stationary toys and equipment, independent play opportunities, neighborhood surroundings, outdoor activity on a typical day, and time spent indoors watching television. Availability refers to both amount and variety of resources present which encourage active mobility. Utilization of resources includes not only the extent to which the child is involved in activities outside the home,

but also how safe his movements appear to be. The overall rating tends to be influenced by the child's use of television, which might inhibit out-of-doors activity.

Ratings

5. High: Highly unrestricted and safe spaces, and varied movement.

4. Generally unrestricted and safe spaces, and fairly active movement with a fair amount of variety.

3. Somewhat restricted space, safety, or cleanliness, but fairly active movement.

2. Rather haphazard, unsafe, and unsupervised activity, regardless of whether space is restricted.

1. Low: Highly restricted and unsafe spaces, and child not very active.

Sample Ratings

High (4 or 5): The child has the use of a large private yard that is clean, safe, and protected for playing. He has both mobile and stationary outdoor toys and makes much use of them. His mother allows him to play with children on the block, and in a typical day he goes out to play with them in the yard, and also over to his grandmother's house to visit. There are some restrictions placed on his television viewing. His home is in a well-kept residential neighborhood.

Medium (3): The child has a large private yard in only fair condition. Although he has no mobile toys, he has stationary outdoor equipment which he uses frequently. His mother allows him to play on the porch or in the yard only with siblings or children she knows. His mother says he watches 22 television programs always or often, amounting to four or five hours of television viewing each day. On a typical day he goes out twice and spends the rest of his time watching television.

Low (1 or 2): The only outdoor play areas for the child are either the sidewalk in front of the building where he lives, or a dirty, unsafe vacant lot. The neighborhood is characterized by dilapidated buildings, unkept yards, and litter. The child has a tricycle which he uses often. His mother allows him to play either with siblings or with neighbor children. In a typical day, he watches television on four occasions and twice goes outside with his mother.

SCALE III: PHYSICAL APPEARANCE AND CARE PATTERN

Description

This pattern is composed of routine caretaking behavior. The basic issue involves mother's and child's appearance as well as provision for routine meals and physical care for the child. Resources include: the child's clothing, his and his mother's appearance in the home and at testing sessions, and home routines related to meals, naps, and bedtime in a typical day. Availability of resources refers to variety as well as presence or absence, and to the child's participation in routines. Also important to the rating is the pattern consistency: if the child's clothing and appearance are adequate, are mother's also?

Ratings

5. High: Very good appearance and routine care.

4. Fairly good appearance and routine care.

3. Fairly good, but somewhat inconsistent appearance and care.

2. Fairly poor appearance and care.

1. Low: Very poor and neglected appearance and care.

Sample Ratings

High (4 or 5): The child's clothing is excellent and his mother is neatly dressed. In a typical day, the child has regular meals with nutritional variety, a snack at mid-morning, and a nap in the afternoon. After his bath, he goes to bed about 8:00 PM.

Medium (3): The child's clothing is adequate. At the testing session he is neat, but his mother is poorly dressed. In a typical day, mother lets him stay up late to watch television; he is likely to fall asleep in a chair. Sometimes he naps. Mother will clean him before he eats, and he has a morning bath.

Low (1 or 2): The child's clothing is inadequate in both quantity and condition, but both he and his mother were neat at the testing session. During a

typical day, he has a light breakfast and whatever he can find for lunch. He goes to bed at 11:45 PM.

SCALE IV: PLAY PATTERN

Description

This pattern includes the amount, variety, and use of toys and toy substitutes, and opportunities for the child to play with a variety of other children. Adult participation in his play, and any conflict between time for television and time for play, are also taken into account. The basic issue is: is there variety, activity, and stimulation in the child's everyday play? Play resources include: outdoor stationary equipment, sand box, pool, or doll house; and indoor construction toys, role-playing toys, school-oriented toys, and expressive toys.

Ratings

5. High: Very active play pattern with great variety and stimulation.

4. Fairly active play with good variety and stimulation.

3. Some activity in play and some variety and stimulation.

2. Some activity but poor variety and little stimulation.

1. Low: Resources for play are almost entirely lacking.

Sample Ratings

High (4 or 5): The child has some toys in all categories except for the school-oriented. He uses all his toys regularly, but most often the indoor types. He enjoys housekeeping play, and mother substitutes mixing batter and "cooking" on the stove for toys; he wants to help mother all day. In a typical day he watches television for an hour with mother, plays with his sister, other children, or with his father. Mother encourages him to play with others.

Medium (3): The child uses role-playing toys extremely often, a tricycle regularly, and other toys sometimes. Dolls are the child's favorite toy. Mother does not offer any toy substitutes. In a typical day, the child watches

television about three hours and plays outside with doll and buggy and inside with a friend and play-dishes.

Low (1 or 2): The child has no toys of his own, but enjoys playing with a sibling's doll when allowed to. In a typical day he watches television for six hours or more and after dinner goes outside to play with siblings.

SCALE V: TASK AND WORK PATTERN

Description

Task refers to the child's self-help in dressing, washing, toilet, etc. Work refers to his efforts to become part of the home routines. The basic issue is: does the home task-work atmosphere provide for active involvement of the child with encouragement and instructions from parents? Resources include: self-reliance measures, work routines, instruction and encouragement from family members. Utilization of resources is indicated by evidence of the child's participation and by the mother's response to hypothetical situations in which the child attempts to master certain skills: sweeping, feeding himself, and helping mother shop.

Ratings

5. High: High involvement in task and work; high encouragement and tolerance of accidents; use of child's attempts as learning situations.

4. Fairly high involvement in tasks, with encouragement; some tolerance, but not so much explanation and instruction.

3. Moderate involvement; sometimes tolerance, sometimes punitiveness towards accidents.

2. Some participation in tasks but with demanding, punitive orientation.

1. Low: Low involvement; punitive orientation and no encouragement.

Sample Ratings

High (4 or 5): Mother encourages self-reliance in the child, and he is able to dress himself, use the toilet, wash his hands, get a drink of water or

a snack, and performs small household tasks. He tries to "help" mother clean, and goes to get things for her. In mastery situations, if he spilled soup while eating, mother would clean him and encourage him to do better; at the supermarket, she would have him stay by the side of the cart and show him things on the shelves he can get for her; if he broke something valuable while trying to sweep, she would tell him he is not ready for sweeping aroung things like that and would let him sweep where such things are out of the way.

Medium (3): Mother allows but doesn't particularly encourage the child in small self-help tasks, but he can do most of them and tries to clean dishes and do little chores, such as sweeping or mopping, before he goes out to play. In mastery situations, mother says she would spank him when he has an accident such as breaking or spilling something, and she would make him stay out of the way at market.

Low (1 or 2): The child cannot dress himself or wash his hands, and mother discourages him from attempting small household chores. In mastery situations, soup-spilling would call for cleaning up and showing him the way it should be done so it wouldn't happen again; at the supermarket, she would not let him fool around with things that don't belong to him, and she would make him stay out of the way; if he didn't obey, he would be spanked. Breaking something while trying to sweep was amusing to mother: she wouldn't get mad, but he would have to wait until he was older to try again.

SCALE VI: DIRECT LEARNING PATTERN

Description

This pattern reflects the specifically school-oriented nature of the resources available for use by the four-year-old. It pertains solely to the child, in contrast to Scale VII, which involves other family members. The basic issue is: does the home provide a variety of stimulating school-oriented resources and learning situations for the child? Resources include: expressive and school-oriented toys, books, records, and games for the child, how mother answers his questions and prepares him for school. Utilization of resources is reflected in adult participation in such activities, whether the child is read to regularly, and what mother says she would do if he had accidents while attempting to master school-related resources such as paints.

Ratings

5. High: Great variety, stimulation, and extensive teaching and learning opportunities for the child.

4. Some variety, stimulation, and fairly extensive opportunities for teaching and learning.

3. Some variety, and some teaching and learning.

2. Few opportunities for teaching and learning.

1. Low: Extremely limited and negative environment for teaching and learning.

Sample Ratings

High (4 or 5): Mother admits she doesn't know answers to the child's questions, but she tries to find out by looking them up. To get him ready for school, she will take him for a visit and to meet the teacher; she is also teaching him to read and write. If the child had an accident when painting, mother would tolerate it but says it wouldn't be too bad because he paints in the kitchen or basement anyway. If he took a clock apart, she would first tell him not to do it and then get it fixed: if it happened a second time, he would have to face the consequences. The child has both school-oriented and expressive toys which he uses only sometimes; some others which he has asked for, mother says she will get for him. Mother reads to the child more than once a week, and the child has a rich quantity of excellent reading material which he often uses by himself. He has and uses good quantities of children's records and games of good quality.

Medium (3): The child has a few books of good quality which he uses often, and his mother joins him at times. He often uses the few games he has, and the good quantity of school and expressive toys. Mother reads to him more than once a week. To answer his questions, she says she has a book to tell how to explain. For school, she is teaching him the ABC's and names of things. If he spilled paint while making a picture, mother would talk to him to get him to be more careful, and she wouldn't let him paint in the living room. She would whip him if he took a clock apart.

Low (1 or 2): There is a minimal quantity of reading material, records, and games for the child; they are of poor quality, and he never uses them. No one ever reads to him. He does have a good number of school and expressive toys, and he uses his coloring set extremely often. Mother says she tries to look up answers to his questions somehow. Spills while painting would be tolerated, but mother thinks he should be more careful.

SCALE VII: INDIRECT LEARNING PATTERN

Description

This pattern refers to the quantity, quality, and utilization of learning resources by family members other than the four-year-old child. The basic issue is: is the family's learning environment rich or limited? This pattern is assumed to have an indirect effect upon the young child's supply of experience and information. Resources include: reading materials, records, hobbies, and games for adults and older children; magazines, books, and pamphlets read regularly by mother; mother's sources of information; use of library and educational television; and experiences of educational value which might occur during a typical day.

Ratings

5. High: Very rich environment; high utilization of extensive and stimulating opportunities for direct learning.

4. Fairly extensive and stimulating opportunities and use.

3. Moderate variety of opportunities for learning. Not a great quantity of learning resources, or resources are not often used. Environmental inconsistency.

2. Some opportunities for learning, but little variety or stimulation. Inconsistent and low.

1. Low: Extremely limited and negative environment for learning. Consistently low.

Sample Ratings

High (4 or 5): Mother's sources of information include the radio and two newspapers. She regularly reads two magazines, and in the last month she has read both books and pamphlets. She has a library card and goes to the library about once a month. She watches educational television, and also is currently doing graduate work. The home has a good quantity of adult reading material and records of very good quality which are used often, and a rich quantity of very good reading material for the older children, who use them extremely often.

Medium (3): Mother uses newspapers to obtain information, and regularly reads magazines. She knows where the library is located, but doesn't use it; however, the older children have cards. Mother watches educational television. In the home, adult reading material, records, and hobbies or games, are all very few in quantity, poor in quality, and seldom used. The same resources for the older children, although poor in quality, are adequate in quantity and regularly used.

Low (1 or 2): Mother occasionally reads a newspaper or watches television as information sources. She hasn't read any books, magazines, or pamphlets in the last month, and reads no magazines regularly. She prefers reading love stories. She isn't sure where the library is, doesn't have a card, and says she goes there less than once a year. She does watch a religious program on educational television. For both adults and older children, reading material, records, and games are virtually nonexistent; the few they have are of poor quality and never used.

SCALE VIII: DIRECT SOCIAL CONTACTS PATTERN

Description

This pattern refers specifically to the child's social contacts with his mother, other family members, and others outside the home. The basic issue is: does the child have extensive, varied, and positive contacts with others? Resources include the daily interaction he has with his mother in other than caretaking tasks; provision for spending time with his father; involvement in family meals and celebrations and in church activities; and the extent of his play with other children. Utilization includes some consideration of the quality of all his social contacts, and the overall quality of family interaction.

Ratings

5. High: Quantity and quality of contacts and interactions are highly extensive, varied, and positive.

4. Quantity and quality of contacts are fairly extensive, varied, and positive.

3. Quantity and quality of contacts are uneven but rather extensive.

2. Quantity and quality of contacts are uneven and fairly limited.

1. Low: Quantity and quality of contacts are extremely limited.

Sample Ratings

High (4 or 5): The child participates in some eight different holidays and celebrations with mother's and father's extended families. As the minister's godson, he sits with him at the altar during church services. In a typical day, his father spends some time with him and takes him to places such as the police station. The child sings, plays, and reads with mother; and he plays often with siblings and neighbors. The family appears to be close-knit and to enjoy each other.

Medium (3): The child participates in four family gatherings on holidays and anniversaries. All celebrations are spent at grandmother's. The child doesn't participate in any church activities, and his play is restricted to siblings only. In a typical day, he watches television with siblings, mother and her friends; plays with siblings; and then eats with mother and siblings. The parents have been separated many times, but father visits frequently and they all do things together as a family.

Low (1 or 2): This family holds no holiday or anniversary celebrations together. The parents prefer to go drinking with friends, excluding the children from the celebration. The child is seldom involved in church activities, but he is allowed to play with any children on the block, as well as with siblings and neighbors. In a typical day, he helps mother clean up, his grandmother takes care of the children, and the child does not eat dinner with his parents. He gets along well with his family but fights about possessions.

SCALE IX: INDIRECT SOCIAL CONTACTS PATTERN

Description

This pattern refers to contacts between the family and others; the child's contacts, considered in Scale VIII, are excluded. The basic issue is: are social contacts and the interaction of the family with others extensive, active, and varied? Such contacts are regarded as resources which, by providing rich experience for family members, may indirectly enrich the child's social experience. Special emphasis is placed on availability and utilization of "quality" contacts, those which provide information or education, or which demand responsible involvement. For example, going to the museum or ballet is more highly rated than mere membership in organizations. Similarly, a balance of contacts

between relatives and friends or community groups is important to the rating. Resources thus include primary contacts outside the home, although persons or interests brought into the family interaction from outside contacts are also examined: parents' activities, involvement in organizations and in church, where they go with friends, and the amount of weekly visiting.

Ratings

5. High: Many contacts with rich variety.

4. Many contacts with not so rich and stimulating variety; or rich and stimulating variety but only a fair number of contacts.

3. Fair number and variety of contacts.

2. Some social involvement and activity, with either little variety or poor quality.

1. Low: Extremely limited involvement and variety.

Sample Ratings

High (4 or 5): Mother and father are each very active in a single organization: the mother in a YWCA homemaker's club, the father in a union organization. Both are church members, mother going once a week and father once a month or less. They like to go bowling with friends. Mother visits about 15 to 20 hours each week; on a typical day, she goes to tea with a neighbor, goes for a walk, to the park, and to a museum. She also attends school.

Medium (3): Father belongs to one organization and mother sometimes attends meetings of another, of which she is not a member. Father never participates in church activities, but he maintains his membership. His wife attends church once a month. They like to get together with friends at home to play cards, or go to the movies or ball games. Sometimes they go to a museum or the zoo. Mother passes the time of day almost every day with friends and visits about 3 to 5 hours each week. In a typical day, father goes to the store and one of the children attends kindergarten. Family interaction appears to be good.

Low (1 or 2): Neither parent participates in any organized activity, and only the mother is a church member, going to services less than once a month. The parents prefer to get together with friends at home. Mother passes the time of day a few times a week with friends, and she visits only 2 or 3 hours each week.

HOME RESOURCES FACTOR SCORE

Scores for all families in the Cognitive Environment Study sample, on each of the nine Home Resources Patterns scales, were subjected to a principal component factor analysis. Each of the nine scales loaded very highly on the first of nine unrotated factors:

Scale	Loading on First Unrotated Factor
Physical Space	.774
Physical Movement	.675
Physical Appearance and Care	.788
Play	.775
Task and Work	.558
Direct Learning	.821
Indirect Learning	.784
Direct Social Contacts	.691
Indirect Social Contacts	.766

Factor scores were obtained for each case on this first factor. This general score, which takes into account availability of resources but is seen more importantly as an indicator of utilization of resources, was used as the basic home resources measure in most of the analyses of data from the project.